

Directions: All questions must be completed on loose leaf. A calculator is allowed. Please reduce any fractions to lowest terms. Place a box around your final answer. **ALL WORK MUST BE SHOWN FOR FULL VALUE.**

Part A:

/12

1) Simplify each of the following: (2 marks each)

a) $3\frac{1}{3}a + \frac{2}{5}b + \frac{1}{2}a - \frac{5}{5}b$

b) $((a^2)(a^3))^2 \div ((a^4) \div (a^2))^2$

c) $(-2.5) \times (-1.3 + 6.4) - 4.8 \div (-3)$

2) Solve: (2 marks each)

a) $7(3x - 4) = 14$

b) $2.3h - 3.91 = 4.1h + 1.49$

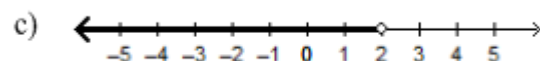
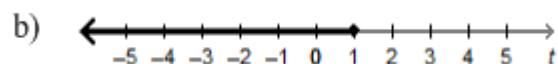
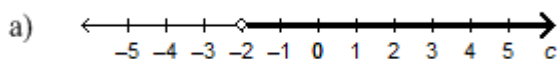
c) $2(3x - 6) = \frac{1}{2}(4x + 2)$

Part B: Please answer all questions. 3 marks each

/12

1) Draw a scalene triangle whose perimeter is $(7x + 11)$ units. Use expressions to label the lengths of three sides.

2) Write the inequality expression represented by the following graphs:



3) Write and solve an equation for the statement: a number divided by 5, plus 8 is 13.

4) Determine 3 values of x that satisfy both of these inequalities.

$x + 15 > 12$ and $x - 4 < -2$

Part C: Complete question 1 and choose any 2 of the remaining 3 questions.
4 marks each /12

1) Solve: $\frac{2}{3}(x+2) - \frac{1}{2}(x-4) > \frac{1}{4}(x+5)$

- 2) Chapters is having a sale. They are charging \$8 for a hard covered books and \$6 for a soft covered book. Brooke has \$72 to spend.
- a) Write an inequality to represent the number of hard cover and soft covered books that Brooke can buy.
 - b) Determine the maximum number of hard covered books she could buy if she only purchased hard covered books.
 - c) Determine the maximum number of soft covered books she could buy if she wanted to purchase 3 hard covered books.
- 3) Glen received grades of 75%, 82%, and 78% on his first three summative assessments. They are all equally weighted. What mark is required on the next summative assessment to achieve an average of at least 80%? To solve the problem, set up an inequality that would help you solve the problem, understanding that there is a maximum mark that Glen could get in the final assessment.
- 4) *The Telegraph Journal* can be delivered to your house for \$0.70 per copy plus a \$25.00 yearly subscription fee. *The Globe and Mail* can be delivered to your house for \$0.75 per copy plus a \$20.00 yearly subscription fee. Determine how many copies are delivered before the cost is the same